MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2019/2020

PEN0055 – ESSENTIAL ENGLISH

(All Foundations)

09 MARCH 2020
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of **SEVEN** pages only.
2. Answer **ALL** questions in **Sections A** and **B**.
3. Write all your answers in the answer booklet provided.

SECTION A: READING AND VOCABULARY [30 MARKS]

Instructions: *Read the passage below and answer the questions that follow.*

Mourning the Dead Has Got High-Tech

1 Throughout history, people have *devised* different ways to remember the dead: the pyramids of Egypt, Gothic mausoleums in Europe and Taj Mahal in India. In 19th-century Europe and America, "death photography" produced pictures of the dead people in lifelike poses; in the Tibetan Buddhist ritual, human remains are set out to feed birds. What some people **consider** pleasant and normal, others would regard as ghoulish and strange. Hence, ideas about honouring the dead are shaped by **culture**, tradition and geography.

2 Nevertheless, in every era, it is the available technology that determines the range of options of remembering the dead; in fact, technology has been important in mourning the dead. In this 21st century, technology is increasingly vital as it creates many interesting innovations, including digital memorials on social media, eco-friendly green burial options and even interactive tombstones.

3 Among these options, one would stand out if it is exceptionally weird. Advanced technology can now **startle** us by turning human ashes into memorial diamonds – real diamonds. Using high-tech heavy-industry machines, engineers can transform the carbon from human ashes into real diamonds. Physically, these diamonds look exactly like natural diamonds found in the earth's crust. Chemically, they are also identical to natural diamonds down to the atomic level.

4 In 1953, the first man-made diamonds were created. Unlike natural diamonds which form naturally in the earth, man-made diamonds are created in the laboratory under a very high temperature and pressure. These diamonds quickly became popular in the **fashion** world in the 1950s, but it was only a few years ago that they could compete with the look of natural diamonds. Still, there is an ongoing debate about whether man-made diamonds can be considered real or genuine diamonds. Famous jewellers like De Beers have claimed that diamonds created by man are not genuine. However, memorial diamonds, diamonds grown from human ashes, are different although they are also created by man. While other man-made diamonds are nothing more than pieces of jewellery, memorial diamonds are also about honouring a departed loved one, and generally, they are regarded by people as genuine diamonds.

5 Several companies worldwide now offer services to families of the dead person to memorialise their loved ones in the most meaningful way possible. The Swiss company, Algordanza, is one of them. "When a man of 80 kilogrammes is cremated, he becomes 2.5 kilogrammes of ashes. With these ashes, we make a diamond of 0.2 grammes, smaller than a button," Rinaldo Willy, the director of Algordanza, explained. Although his product has been long known as diamond, Willy is still struggling to define it. "It could be more suitably defined as a legacy of the deceased, or it could be seen as a beautiful life lived," Willy said.

6 In Algordanza, scientists and specialists are prohibited from artificially changing the colour of diamonds because the act of altering the colour of the memorial diamond is seen as unethical. Hence, the natural colour of each Algordanza diamond is maintained. It is also **unique** as it results from the specific combination of trace elements present in an individual's body. For instance, some are yellow as nitrogen, which forms three per cent of the human body, lends them a

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yellow colour. The blue colour in some diamonds produced by Algordanza is the result of boron supplements in the body. Explaining the colour of these diamonds, Willy said, "In a recent order, I had an older gentleman calling me in tears. He said, 'I don't understand. My wife was not a bad person, but her diamond is black.' Little did this gentleman know that too much boron will turn the diamond black." Despite the occasional disappointment, Willy said, most clients are grateful for the service his company provides.

7 Every year, the company processes about 1,000 memorial diamonds. After cremation, the ashes are shipped to Algordanza's laboratory. Scientists process the ashes to extract the genuine carbon elements and remove other impurities. In the next step, the carbon ashes are converted into graphite, in which the atoms are **packed** into tight, flat sheets. Inside Algordanza's high-pressure, high-temperature (HPHT) machines, a system of cubic presses exerts a force of 870,000 pounds per square inch on the graphite, gradually changing the molecular structure into pure diamond. The gem can be kept in its rough state or cut and polished by Algordanza's specialists.

8 The process of changing human ashes to a diamond costs between $5,000 and $20,000. "The largest Algordanza memorial diamond produced to date was a 1.76-carat brilliant cut," said Christina Martoia, Algordanza's U.S. representative. "The price was $38,000." The hard science of memorial diamonds is fascinating because a diamond that otherwise takes hundreds of millions of years in its formation can now be produced in weeks. However, the price may be out of reach for budget-minded people. Death is already unavoidable and largely unpleasant. Does it have to be expensive, too? Gratefully, another company has stepped into this odd marketplace. Headquartered in Barcelona, the Spanish start-up, Bios Urn, offers a much more affordable option of memorial diamonds.

9 Candi K. Cann, the author of the book *Virtual Afterlives: Grieving the Dead in the Twenty-First Century*, said memorial diamonds are associated with the concept of continuing bonds. In her explanation, Cann said that keeping the loved one in one's life, in some form, is a healthy expression of a continued bond. "The diamond also reflects continued recognition of the loss of the dead person in one's life," she explained. According to Cann, it is also about people turning to science and technology of their era to face death. The Romans did it. The Maya did it. We are doing it with delicate microchips and massive machines. Science progresses, and technologies change, but the basic human experience remains.

10 Although the idea of wearing your deceased loved one around your finger or neck might be a little unsettling, memorial diamond companies do not see it that way. "We're part of an important movement that's changing the way people mourn death," said Adelle Archer, co-founder of Eterneva, a memorial diamond company in the United Kingdom. "People are really hungry for a different way to do things, and the permanent and distinctive nature of our products makes our presence in the industry so important." Not only are these diamonds beautiful, said Archer, but they also last for generations. "No one is ever going to throw a diamond away."

Adapted from McDonald, G. (2019, May). From diamonds to rockets, mourning the dead has got high-tech. *National Geographic*. Retrieved from https://www.nationalgeographic.com/magazine/2019/05/ashes-to-diamonds-reefs-rockets-how-we-will-memorialize-dead/

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Question 1: Contextual Clues (5 marks)

Instructions: *Provide a word from the reading passage for each definition below.*

Example:	**invented a new way or method**	**(paragraph 1)**	**word:** ***devised***
a)	frightening and unpleasant	(paragraph 1)	
b)	do something to remember a person	(paragraph 5)	
c)	not allowed	(paragraph 6)	
d)	substances of low quality	(paragraph 7)	
e)	making you feel uneasy or nervous	(paragraph 10)	

Question 2: Affixes (5 marks)

Instructions: *Fill in the blank in each question below with an appropriate word by adding a suitable prefix or suffix or by adding both prefix and suffix to the word provided.*

Example:
consider (line 5)
These plans require careful **consideration** because they involve a huge sum of money.

a. **culture** (line 7)
Living in a _____society, the people need to show respect for the beliefs and values of different ethnic groups.

b. **startle** (line 14)
Professor Smith, a well-known researcher, won an award at the prestigious university for his _____ discoveries in his latest research.

c. **fashion** (line 22)
Since Debbie enrolled for a dancing class a few months ago, she has started to lose weight and to dress more _____.

d. **unique** (line 42)
The _____ of the Forbidden City, a famous building in China, lies in its preserved ancient wooden structures.

e. **packed** (line 56)
After the shipments of the goods arrived at the warehouse, they were immediately _____ from the shipping boxes so that they could be distributed to retail shops.

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Question 3 : Comprehension Questions (20 marks)

Instructions: *Answer the following questions.*

a) Why is technology important in remembering the dead? (2 marks)

b) State two characteristics of memorial diamonds which indicate that they are similar to natural diamonds. (2 marks)

c) What are the differences between memorial diamonds and other man-made diamonds? (2 marks)

d) i. What can be inferred from the following statement, "Although his product has been long known as diamond, Willy is still struggling to define it" (lines 36 - 37)? (1 mark)

ii. Provide evidence to support your inference. (1 mark)

e) List three examples to illustrate that the diamonds produced by Algordanza take their natural colours and are not artificially coloured. (3 marks)

f) What is the main idea of paragraph 7? (1 mark)

g) i. Based on the information in paragraph 8, state one advantage and one disadvantage of producing memorial diamonds. (2 marks)

ii. What is the development in the industry that could overcome the disadvantage pointed out in (i)? (1 mark)

h) Why does Cann think that memorial diamonds are related to continuing ties between the deceased person and the living ones? (2 marks)

i) What does "the basic human experience" (line 79) refer to? (1 mark)

j) How is the existence of memorial diamond companies important in mourning death? (2 marks)

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SECTION B: GRAMMAR [20 MARKS]

Question 1 (10 marks)

Instructions: *Each sentence below contains **one** error in one of the following types: fragment, run-on or faulty parallelism. Write the type of error and correct the error in your answer booklet as shown in the example below.*

Example:

0. Many cases of household burglaries are not forced entries, and this means that walking, climbing, or **to crawl** into houses is easy as if the owners have left a key at the door.

i) Type of error: **faulty parallelism**
ii) Correction: ...**crawling**...

1. Bo-Kaap, which has brightly coloured homes, one of the oldest and the most fascinating residential areas in the South African city of Cape Town.

2. The Arctic reindeer is the only mammal whose eyes shine a different colour depending on the season in summer, when the sun is bright, the eyes are dazzling golden, but as the sun prepares to set for the winter, the eyes turn dark blue.

3. Having a part-time job during high school might sound like a good idea, parents of teenagers need to weigh the advantages against the potential disadvantages to determine whether working is a good choice.

4. Some of the cultures around the world, such as Costa Rica and Greece, have a great number of people who live the longest, healthiest and happier life.

5. While the traditional practice of arranged marriage has been illegal in China since the 1950s. Parents remain heavily involved in their children's marital decisions.

6. Everyone experiences anger at some point in life, but it becomes problematic when the severity of anger interferes with personal relationships, mental health, or how work performance is.

7. Hiyori Kon, a 22-year-old sumo wrestling champion, is hoping to change the rules of one of the oldest sports in Japan, where women not allowed to compete professionally.

8. During monsoons, the fishermen in Sri Lanka catch fish and sell them in markets for the rest of the year, they pose for pictures for tourists in order to earn additional money, with a share also going to the tour operators who bring the tourists to the shore.

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9. Many people believe that taking a step back from work and travelling to a beautiful foreign country can make them healthier both physically and in terms of their emotion.

10. For centuries, Vietnamese children have been entertained by a unique puppet show performed on water, the puppeteers who stand in chest-deep water behind a curtain backdrop control wooden puppets with strings hidden under the water.

Question 2 (10 marks)

Instructions: *The following extract contains 10 errors in fragment, run-on and faulty parallelism. Identify these errors and correct them as shown in the example.*

Example: No	Line	Error	Correction
0	2	**...we are communicating.**	**...we communicate.**

The Humble Mineral that Transformed the World

From cities that never sleep to rural villages that are remote, one technology is changing how we live, how we work and how **we are communicating**. From the smartphones in our pockets to the vast computer servers powering the Internet. Inside every one of them, there are tiny pieces of technology that make it all possible: semiconductors.

These are the basic building blocks of modern computers. Semiconductor devices called transistors are the tiny electronic switches that are found inside our computers scientists in the United States built the first silicon transistor in 1947. Before the invention of transistors, scientists who built computers had used vacuum tubes, which were slow and bulky. However, silicon changed everything.

Manufacturing transistors by using silicon allowed them to be made small enough to fit on a microchip. Creating many new gadgets that have become smaller and smarter by the year. "Being able to make these transistors tinier allows us to do things we couldn't have done in previous generations," says John Neuffer, chief executive of the Semiconductor Industry Association.

With microchips, the pace of innovation was surprising, unique and of an exceptional nature. Chips began to be made tinier at such a steady rate as if the technology was following a fixed pattern. Scientists predicted that the number of transistors that we could fit on a chip would double every two years.

Until very recently, the prediction was true scientists then tried to make transistors even smaller. Nevertheless, they faced a problem to fit more transistors on a chip. At the early stage of invention, transistors could be seen with the naked eye. Now, a tiny chip holds many billions of them. It is this quick improvement in manufacturing. Which has driven the digital revolution.

Silicon is an element important in this revolution. It is a humble, found in abundance and common substance on the planet. Silicon is found in minerals that make up 90 per cent of the earth's crust. It feeds a $500 billion chip industry, this industry in turn powers a global technology economy worth an estimated $3 trillion.

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The semiconductor business has also become one of the most interlinked businesses in history. Raw materials come from Japan and Mexico, and chips are made in the United States and China. The chips are then shipped around the world to be installed in devices. Ending up in people's hands in every country in the world.

High-quality electronics require high-quality ingredients the purest silicon in the world comes from a quarry in North Carolina, the United States. Millions of the world's digital devices, even the phone in your hand or the laptop in front of you, carry a piece of this small North Carolina town inside them.

Adapted from Heaven, D. (2019, November 22). *The humble mineral that transformed the world.* Retrieved from http://www.bbc.com/future/bespoke/made-on-earth/how-the-chip-changed-everything

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